

HIGH PERFORMANCE SURGICAL C-ARM MOBILE

KMC-950

DIGITAL IMAGING MANAGEMENT SYSTEM

H.F. GENERATOR & ROTATING ANODE TUBE WITH DIGITAL WORKSTATION

DESCRIPTION:

KMC-950 C-arm mobile systems are integrated with triple field 9" image intensifier tube, CCD digital camera and rotating anode X-ray tube for R/F application. The C-arm x-ray generator is designed with state-of-the-art-microprocessor control and touch sensitive screen control panel makes easy of operation and visualization on the large LCD window.

The compact size, correct distribution of lighter weight and the large diameter of the wheels and steering handle allow for easy maneuverability, quick positioning and the necessary flexibility to perform a wide range of R/F procedures, meeting the needs of all medical healthcare facilities. KMC-950 C-arm is utilized in an in-patient or outpatient care clinics and hospital for surgical, orthopedic, urology, angiography, trauma and pain management procedures.

Producing 125 kVp at 15 mA in Hi-fluoro-mode and HF constant x-ray energy, the HF generator provides improved image quality and reduces patient/ operator radiation dosage. Further reductions in radiation dosage are realized with digital imaging acquisition and pulsed fluoroscopic modes of operation. The boost fluoro-mode allows rapid, high contrast image acquisition for an oversize or over-weighted patient during all fluoroscopic procedures.

F-link software is designed for digital fluoro image acquisition and patient file management which is interfaced with C-arm mobile systems thru RS-232 C connection between HF generator controller and image workstation. F-link system is an optional item for a user's choice.



KMC-950 C-arm Mobile System

FEATURES:

- ◆ High Frequency Generator :
 - 125 kV/ 100 mA for Rad.
 - 125 kV/ 15 mA for Boost FL.
- ◆ Microprocessor Control & APR Panel
- ◆ LCD Touch Control Screen & Window
- ◆ High Power Inverter : 12.5 kW
- ◆ High Resolution II Tube : 9" II (Triple Mode)
- ◆ X-ray Tube : Rotating Anode Tube
- ◆ Focal size : 0.3 – 0.6 mm micro filament
- ◆ High resolution & Contrast in image quality
- ◆ Pulsed fluoro for dose reduction
- ◆ Boost fluoro (15mA) for high contrast image
- ◆ Auto Brightness Control (ABC) for fluoro image
- ◆ Motorized & Rotating collimator
- ◆ CCD camera with 16 frames memory
- ◆ 17 " monitor , LIH and noise reduction
- ◆ Digital Image System (DIS) : Optional
- ◆ DICOM network : Optional
- ◆ Power requirement : 110/220 VCA, 50/60 Hz

F-LINK DIGITAL IMAGE MANAGEMENT SOFTWARE & DIGITAL IMAGE PROCESSOR

SYSTEM SPECIFICATION:

X-RAY GENERATOR :

Type : High Frequency Inverter
Controller : Microprocessor & PROM
OP Console : LCD Touch Panel Screen and membrane Switch
Mode : Radiographic mode (Rad)
 Fluoroscopic mode (FL)
Display Panel : LCD Window & screen
Power rating : 12.5 kW Inverter
KV range : 40-125 kVp; 1.0 kV increment
Rad. mA range : 20-100 mA (programmable)
Rad. mAs range : 0.2 to 500 mAs
Fluoro mA : Normal FL: 0.3 – 5.0 mA
 Multi-pulse : 0.3-5.0 mA
 Snap FL : 8.0 mA (8 FPS)
 Boost FL : 8-15 mA (selectable)
Exp.Timer : Rad. Mode : 3.0 ms to 8.0 sec
 FL. Mode : 0 to 5.0 minutes
Auto. KV : Automatic Brightness Control(ABC) on Fluoro. mode of operation

X-RAY TUBE :

Type : Rotating Anode (Rad-99, Varian)
Focal Size : 0.3 mm to 0.6 mm / micro focal
Anode Target : 10 ° Target Angle / TM
Heat Capacity : 300,000 HU
KV Capacity : 125 kVp
Filtration : 0.5 mm Al. @ 100 kV

Motorized Collimator :

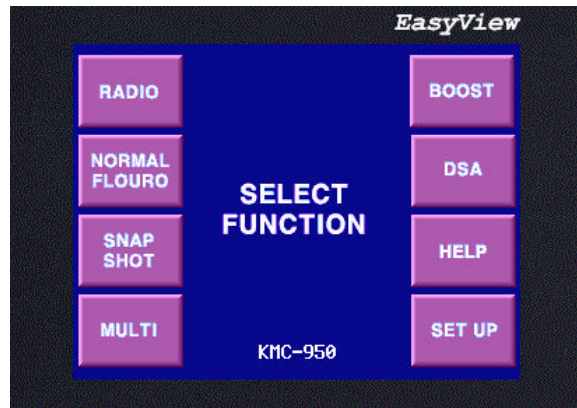
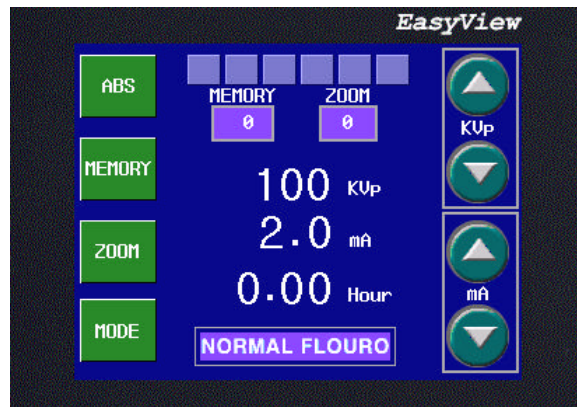
Type : Remote motor driven control
 Rotating : 360 °
Shutter : Two(2) pair lead blades
Diaphragms: Two(2) sets of circular aperture
Filter : 2.5 mm AL. @ 100 kVp

CASSETTE HOLDER :

Mount type : Mounting bracket on II Tube.
Size : 24cm x24cm or 24cm x 30cm
Grid : 80 lines, 8:1 ratio, 28 " -32 " focus

CCD DIGITAL CAMERA :

CCD Size : ½ x ½ Inch,
No. of Pixels : 768(H) x 494(V)
Video Signal : 525 Lines/ 59.9 Hz (EIA)
 Scan : 2:1 interlaced



LCD TOUCH PANEL SCREEN WINDOW

Aspect Ratio : 4:3 (H : V) ratio
Signal Output : 1.0 Vp-p / 75 Ohm
Memory Capacity : 16 frame Image memory (basic)
 64 frame Image memory (option)
Noise Reduction : Up to 8 level selections
LIH : Last Image Hold function
Image rotation : 360 ° continuously

Monitor :

Super VGA : 17" Color monitor, Flat tube
Sync master : 727 MB
Dot Pitch : 0.20 mm (H)
Matrix Size : 1600 x 1200 @ 76 Hz, flicker free
Brightness : 500 CC / Meter
Color Control : Auto. natural color

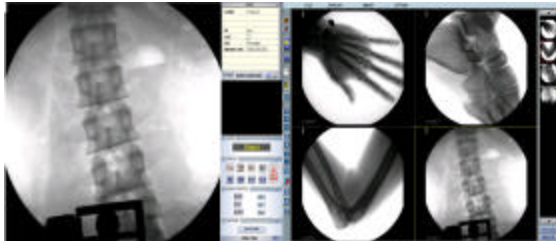
ADVANCED IMAGE MANAGEMENT & NETWORKING DIGITAL WORKSTATION & KMC-950 C-ARM MOBILE

BEST SOFTWARE FOR IMAGE AND PATIENT FILE MANAGEMENT

DIGITAL IMAGING SYSTEM (DIS)

DIS is the advanced image management system which is designed to meet the demands of today' s complex & diversified medical imaging acquisition and procedures for C-arm mobile application.

“ Search & View “ functions make possible to study quickly thru the all patient' s image database and thousands of images are able to transfer the remote location thru any PACS system.



FEATURES :

- **Database management**
 - Very convenient for the image storage and search.
 - Easy management for patient database.
 - Compare a live image and image on database side by side during a patient examination.
- **Image Storage & Memory**
 - Hard Drive Capacity :160 GB Memory
 - Store more than 10,000 frame of images.
- **Variety of diagnostic image control tools**
 - Zoom, Contrast, Reverse, Rotation
 - Noise filtering, Edge Enhancement,
 - Image processing : Real time & Post processing
- **PACS Connectivity with DICOM**

SPECIFICATIONS :

- **Computer PC System**
 - Pentium IV processor & Window 2000
 - Dual VGA display board : MGA G550
 - 512 MB RAM
 - 80 GB hard driver
 - Frame Grabber board
 - Desktop case, Key board & mouse
 - F-Link software forDIS
 - Two Color Monitor, 107P40 / 17”

- **Data Acquisition**
 - Image Size : 1024 x 1024 (Standard NTSC)
 - Pixel depth : 8 bits
 - Automatic image capture
 - Dual monitor display & operation
- **Image Processing**
 - Window Level (contrast adjustment)
 - Real time & Post-Processing
 - Pan & Zoom Control
 - Image flip (Horizontal & Vertical)
 - Image rotation (360 °)
 - Noise reduction & recursive filter
 - Edge Enhancement (sharpness)
- **Image Management**
 - Create a patient file & database
 - DICOM 3 interface
 - Networking to PACS (DICOM send)
 - Local Printer Connection
- **Overlay Image Data & Display**
 - Patient ,Study & Image Information
 - Annotation, text and measurement
 - Symbol annotation: Circle, arrow ,square ..etc.
 - Multiple display : up to 5 X 5 matrix format
- **Image Storage**
 - More 8,000 images on 80 GB/ HD
 - JPEG compression
 - Convertible to a general format : BMP, PCX, GIG ...etc

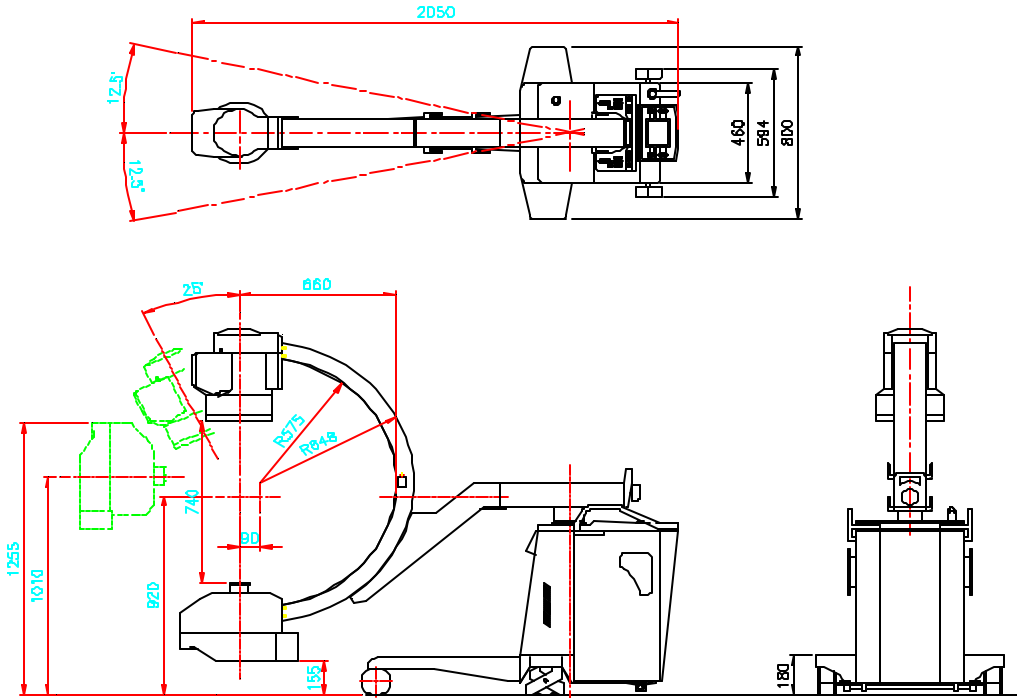


DUAL MONITOR DISPLAY & WORKSTATION

MECHANICAL SPECIFICATION

UNIT: mm

WEIGHT: 270 KG (600 LBS)



C-ARM MOVEMENT & DIMENSION

- Free space in arc : 29" (740 mm)
- Depth of arc : 22.6" (575 mm)
- Orbital rotation : 115 °
- Horizontal travel : 7.9" (200 mm)
- Vertical travel : 17.7" (450 mm)
- Panning motion: ± 12.5 °
- Pivot rotation : ± 180 °
- Motion lock Friction locks for all motion.
- Steering handle Two front wheels
- Brake : Dual foot brake on side

FULL CDRH COMPLIANCE :

KMC-950 C-arm mobile system conforms to all applicable requirements of the Center for Devices and Radiological Health Department and Human Services, 21 CFR, Chapter 1, Subchapter J, at time of manufacture.

POWER REQUIREMENT :

Max. Power : 3.3 KVA @ 110 VAC (limited output)
 12.0 KVA @ 220 VAC (full power out)
 Line Voltage: 110 / 220 VAC, 50/60 Hz
 Line Current : 25-20 amp @ 110 VAC
 63 amp @ 220 VAC (full power out)



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